



SY-6KL Mainboard

Quick Start Guide

Introduction

Hardware
Installation

Quick BIOS
Setup

The SOYO CD

FC Tested To Comply
With FCC Standards
FOR HOME OR OFFICE USE

100% POST CONSUMER
RECYCLED PAPER

SY-6KL Mainboard

Pentium® II processor
82440 LX AGP/PCI Mainboard
66MHz Front Side Bus supported
AT/ATX Power Connectors

Copyright © 1998 by Soyo Computer Inc.

Trademarks:

Soyo is a registered trademark of Soyo Computer Inc. All trademarks are the property of their owners.

Product Rights:

Product and corporate names mentioned in this publication are used for identification purposes only and may be registered trademarks or copyrights of their respective companies.

Copyright Notice:

All rights reserved. This manual is copyrighted by Soyo Computer Inc. You may not reproduce, transmit, transcribe, store in a retrieval system, or translate into any language, in any form or by any means, electronic, mechanical, magnetic, optical, chemical, manual or otherwise, any part of this publication without express written permission of Soyo Computer Inc.

Disclaimer:

Soyo Computer Inc. makes no representations or warranties regarding the contents of this manual. We reserve the right to revise the manual or make changes in the specifications of the product described within it at any time without notice and without obligation to notify any person of such revision or change. The information contained in this manual is provided for general use by our customers. Our customers should be aware that the personal computer field is the subject of many patents. Our customers should ensure that their use of our products does not infringe upon any patents. It is the policy of Soyo Computer Inc. to respect the valid patent rights of third parties and not to infringe upon or assist others to infringe upon such rights.

Restricted Rights Legend:

Use, duplication, or disclosure by the Government is subject to restrictions set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at 252.277-7013.

About This Guide:

This Quick Start Guide is for assisting system manufacturers and end users in setting up and installing the mainboard. Information in this guide has been carefully checked for reliability; however, no guarantee is given as to the correctness of the contents. The information in this document is subject to change without notice.

If you need any further information, please visit our **Web Site** on the Internet. The address is "<http://www.soyo.com.tw>".

6KL Serial - Version 1.0 - Edition: August 1998

* These specifications are subject to change without notice

1 Introduction

Congratulations on your purchase of the **SY-6KL** Mainboard. This *Quick Start Guide* describes the steps for installing and setting up your new mainboard.

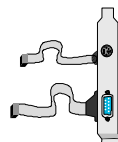
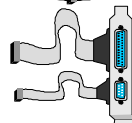
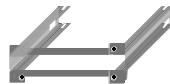
This guide is designed for all users to provide the basic steps of mainboard setting and operation. For further information, please refer to *SY-6KL Mainboard User's Guide and Technical Reference* online manual included on the CD-ROM packed with your mainboard.

Unpacking

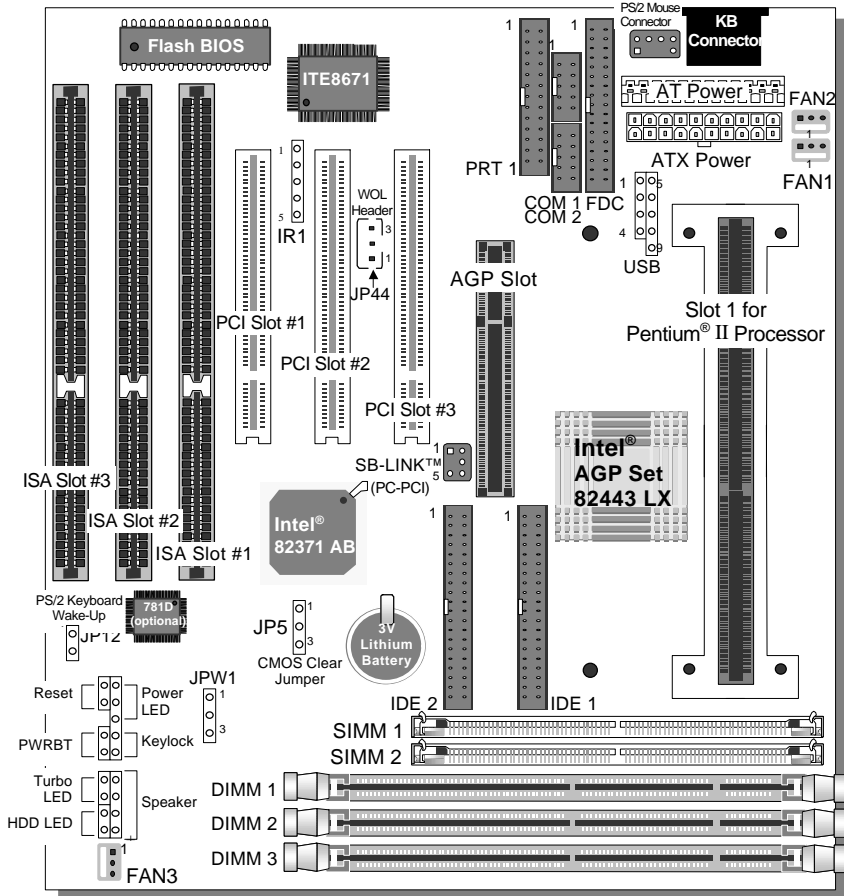
* If your board comes with a driver disc and a paper manual, the Quick Start Guide and the CD-ROM are not included in the package.

When unpacking the mainboard, check for the following items:

- ◆ The SY-6KL 82440 LX AGP/PCI Mainboard
- ◆ This Quick Start Guide
- ◆ The Installation CD-ROM
- ◆ The CPU Retention Set
- ◆ One IDE Device Flat Cable
- ◆ One Floppy Disk Drive Flat Cable
- ◆ One dual 25-pin parallel with 25-pin flat cable and 9-pin serial with 9-pin flat cable external connector
- ◆ One 9-pin serial connector with 9-pin flat cable and 6-pin PS/2 mouse connector with 6-pin cable



SY-6KL Mainboard Layout



Key Features

- Supports Intel Pentium® II processors (233-333MHz) & Celeron™ processors (266-366MHz)
- Auto-detect CPU voltage
- PC97, ACPI, Ultra DMA/33
- Power-on by modem or alarm
- Supports Wake-On-LAN (WOL)
- Supports Wake-Up by PS/2 Keyboard or Mouse
- Supports Creative SB-LINK™ (PC-PCI) for PCI audio card
- 1 x 32-bit AGP slot
- 3 x 32-bit bus mastering PCI slots
- 1 x IrDA port
- Supports multiple-boot function
- DMI utility
- AT/ATX power connectors

2 Installation



To avoid damage to your mainboard, follow these simple rules while handling this equipment:

- Before handling the mainboard, ground yourself by grasping an unpainted portion of the system's metal chassis.
- Remove the mainboard from its anti-static packaging. Hold it by the edges and avoid touching its components.
- Check the mainboard for damage. If any chip appears loose, press carefully to seat it firmly in its socket.

Follow the directions in this section designed to guide you through a quick and correct installation of your new **SY-6KL** Mainboard. For detailed information, please refer to *SY-6KL Mainboard User's guide and Technical Reference* online manual included on the CD-ROM packed with your mainboard.

PREPARATIONS

Gather and prepare all the necessary hardware equipment to complete the installation successfully:

- ◆ Pentium® II processor with built-in CPU cooling fan (boxed type)
- ◆ SDRAM module
- ◆ Computer case and chassis with adequate power supply unit
- ◆ Monitor
- ◆ PS/2 Keyboard
- ◆ Pointing Device
- ◆ VGA Card
- ◆ Sound Card (optional)
- ◆ Speaker(s) (optional)
- ◆ Disk Drives: HDD, CD-ROM, Floppy drive ...
- ◆ External Peripherals: Printer, Plotter, and Modem- (optional)
- ◆ Internal Peripherals: Modem and LAN cards (optional)

SY-6KL Quick Start Guide

Install the Mainboard

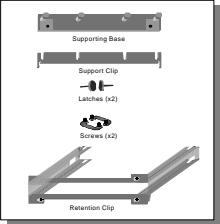
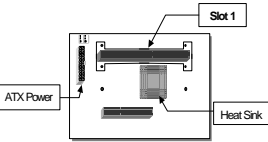
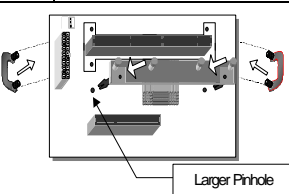
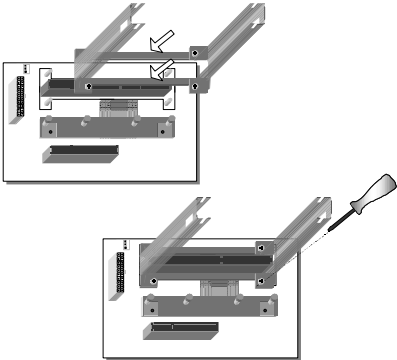
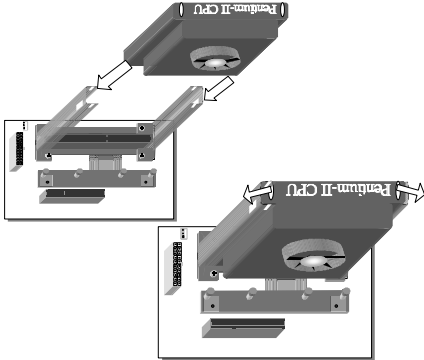
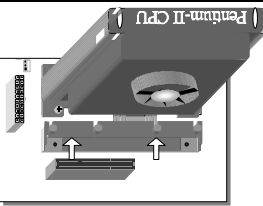
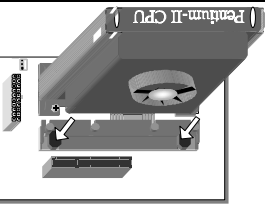

Follow the steps below in order to perform the installation of your new **SY-6KL** Mainboard.

Step 1. Install the CPU

✓ Mark your CPU Frequency: Record the working frequency of your CPU that should be clearly marked on the CPU cover.

<input type="checkbox"/> 233MHz (66 x 3.5)	<input type="checkbox"/> 300MHz (66 x 4.5)	<input type="checkbox"/> 366MHz (66 x 5.5)
<input type="checkbox"/> 266MHz (66 x 4.0)	<input type="checkbox"/> 333MHz (66 x 5.0)	

CPU Mount Procedure: To mount the Pentium® II processor that you have purchased separately, follow these instructions.

1	Unpack the Retention Kit	2	Position the Mainboard	3	Insert the Screws	4	Install the Supporting Base
							
5	Install the Retention Clip	6	Install the CPU				
							
7	Install the Support Clip	8	Insert the Latches	9			
							
Remember to connect the CPU Cooling Fan to the FAN1 power connector on the mainboard.							

Step 2. Make Connections to the Mainboard

This section tells how to connect internal peripherals and power supply to the mainboard.

Internal peripherals include IDE devices (HDD, CD-ROM), Floppy Disk Drive, Chassis Fan, Front Panel Devices (Turbo LED, Internal Speaker, Reset Button, IDE LED, and KeyLock Switch.), Wake-On-LAN card, VGA card, Sound Card, and other devices.

For more details on how to connect internal and external peripherals to your new SY-6KL Mainboard, please refer to *SY-6KL Mainboard User's Guide and Technical Reference* online manual on CD-ROM.

Connectors and Plug-ins

PCI Audio Card Header: SB-Link™(PC-PCI)		Wake-On-LAN Header: JP44
Connect the SB-Link™(PC-PCI) cable from your PCI audio card to this header.		Connect the WOL cable from your LAN card to JP44.
CPU Cooling Fan: FAN 1		Chassis Fan: FAN 3
Connect the CPU cooling fan cable to the FAN1 power connector.		Connect the case cooling fan cable to the FAN3 power connector.
USB	TB LED	SPK
Plug your USB devices to this header.	Connect your Turbo LED cable to this header.	Connect the speaker cable to this header.
RESET	IDE LED	KB-LOCK
Connect the reset button to this header.	Connect the IDE device LED to this header.	Connect the Power LED and the KB Lock switch to this header.
IrDA (Infrared Device Header): IR1		AT Power Supply
Connect the cable from your IrDA device to this header.		Connect the AT Power Supply cable to this connector
ATX Power On/Off: PWRBT		ATX Power Supply: ATX PW
Connect your power switch to this header (momentary switch type). Depending on the BIOS setting, turning off the system is done by “one touch” or by pressing the switch for >4s longer than 4s.		Attach the ATX Power cable to this connector. When using the PS/2 Keyboard Wake-Up function, please make sure the ATX power supply can take at least 720mA load on the 5V Standby lead (5VSB) to meet the standard ATX specifications.
ATX Power Select: JPW1		
If you use a non-standard ATX power supply, open this jumper.		

SY-6KL Quick Start Guide

Step 3. Configure Memory

Your board comes with three DIMM sockets and two SIMM banks, providing support for up to 384MB of main memory using DIMM modules from 8MB to 128MB and SIMM modules from 8MB to 64MB with no restriction on memory configuration. Therefore, you can install memory modules in any combination.

For 66MHz front side bus CPUs use 12ns or faster memory.

Memory Configuration



MEMORY CONFIGURATION	SIMM Bank	DIMM Banks		
	Bank 0	DIMM 1	DIMM 2	DIMM 3
RAM Type	EDO	EDO/SDRAM	EDO/SDRAM	EDO/SDRAM
Single RAM Module Size (MB)	8/16/32/64	8/16/32/64/128	8/16/32/64/128	8/16/32/64/128
Notice 1: You must always install two (2) SIMM modules to complete the SIMM bank.				
Notice 2: Do not install memory modules in SIMM and DIMM 3 at the same time.				

Step 4. Set the CPU Frequency

You do not need to set any jumper for the CPU frequency. Instead, CPU setting are changed through the BIOS **[CHIPSET FEATURES SETUP]**. Please refer to *Chapter 3 - Quick BIOS Setup* for details on how to set the Pentium® II processor frequency.



Step 5. Enable/Disable PS/2 Keyboard Wake-Up (JP12)

You can choose to enable the Wake-Up by PS/2 Keyboard or Mouse function by shorting pin 1-2 on jumper JP12, otherwise, remove the jumper cap to open pin 1-2 and disable this function.

Support Wake-Up by Keyboard	Enable	Disable* (*Default)
JP12 Setting	Enable Wake-up by Keyboard or Mouse function (short pin 1-2) 	Disable Wake-up by Keyboard or Mouse function (open pin 1-2) 
Important: When using the PS/2 Keyboard Wake-Up function, please make sure the ATX power supply can take at least 720mA load on the 5V Standby lead (5VSB) to meet the standard ATX specifications.		

Step 6. Clear CMOS Data (JP5)

Clear the CMOS memory by momentarily shorting pin 2-3 on jumper JP5 for at least 5 seconds, and then by shorting pin 1-2 to retain new settings. This jumper can be easily identified by its white colored cap.

CMOS Clearing	Clear CMOS Data	Retain CMOS Data (Default)
JP5 Setting	Short pin 2-3 for at least 5 seconds to clear the CMOS. 	Short pin 1-2 to retain the new settings. 
Note: You must unplug the ATX power cable from the ATX power connector when performing the CMOS Clear operation.		

3 Quick BIOS Setup

This mainboard does not use any hardware jumpers to set the CPU frequency. Instead, CPU settings are software configurable with the BIOS **[CHIPSET FEATURES SETUP]**.

After the hardware installation is complete, turn the power switch on, then press the **** key during the system diagnostic checks to enter the Award BIOS Setup program. The CMOS SETUP UTILITY will display on screen. Then, follow these steps to configure the CPU settings.

Step 1. Select **[LOAD SETUP DEFAULT]**

Select the "LOAD SETUP DEFAULT" menu and type "Y" at the prompt to load the BIOS optimal setup.

Step 2. Select **[STANDARD CMOS SETUP]**

Set [Date/Time] and [Floppy drive type], then set [Hard Disk Type] to "Auto".

Step 3. Select **[CHIPSET FEATURES SETUP]**

Move the cursor to the **[CPU Speed]** field to set the CPU frequency.

Available [CPU Speed] settings on your SY-6KL Mainboard are detailed in the following table. If you set this field to [Manual], you are then required to fill in the next two consecutive fields: (1) the [CPU Host Clock], and (2) the [CPU Ratio].

CPU Speed	
<input type="checkbox"/> 233MHz (66 x 3.5)	Select the working frequency of your Pentium® II processor among these preset values. Note: <input checked="" type="checkbox"/> Mark the checkbox that corresponds to the working frequency of your Pentium® II processor in case the CMOS configuration should be lost.
<input type="checkbox"/> 266MHz (66 x 4.0)	
<input type="checkbox"/> 300MHz (66 x 4.5)	
<input type="checkbox"/> 333MHz (66 x 5.0)	
<input type="checkbox"/> 366MHz (66 x 5.5)	

Step 4. Select **[SAVE & EXIT SETUP]**

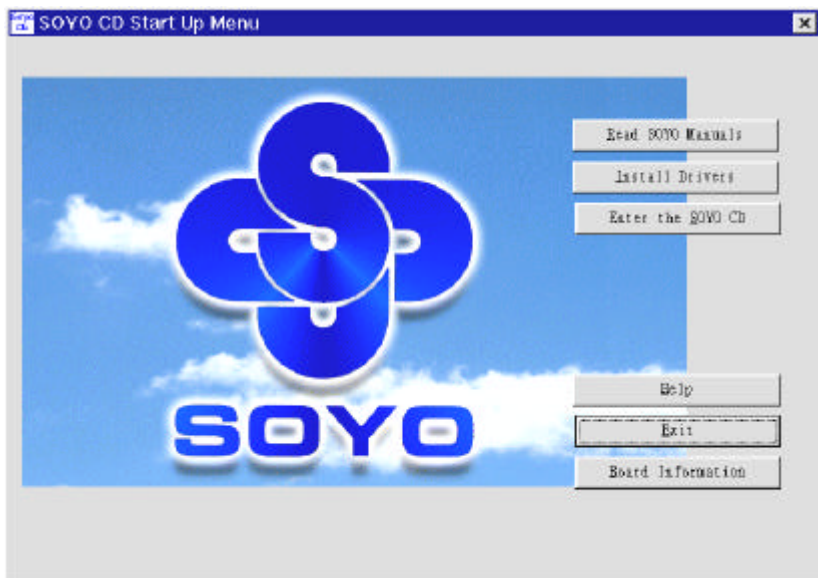
Press **<Enter>** to save the new configuration to the CMOS memory, and continue the boot sequence.

4 The SOYO CD

Your SY-6KL Mainboard comes with a CD-ROM labeled "SOYO CD." The SOYO CD contains the user's manual file for your new mainboard, the drivers software available for installation, and a database in HTML format with information on SOYO mainboards and other products.

Step 1. Insert the SOYO CD into the CD-ROM drive

The SOYO CD will auto-run, and the SOYO CD Start Up Menu will display as shown below.



(SOYO CD Start Up Program Menu)

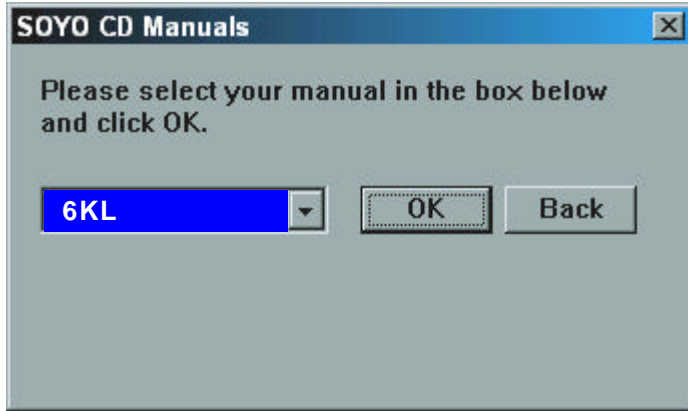
The SOYO CD Start Up Program automatically detects which SOYO mainboard you own and displays the corresponding model name.

Step 2. Read SOYO [model name] Manual

Click the **Read Manual** button to open the user's manual file of your mainboard.

SY-6KL Quick Start Guide

Please note that if the Start Up program was unable to determine which SOYO mainboard you own, the manual selection menu will pop up, as shown below. Then select the user's manual file that corresponds to your mainboard model name and click **OK**.



(Manual Selection Menu)

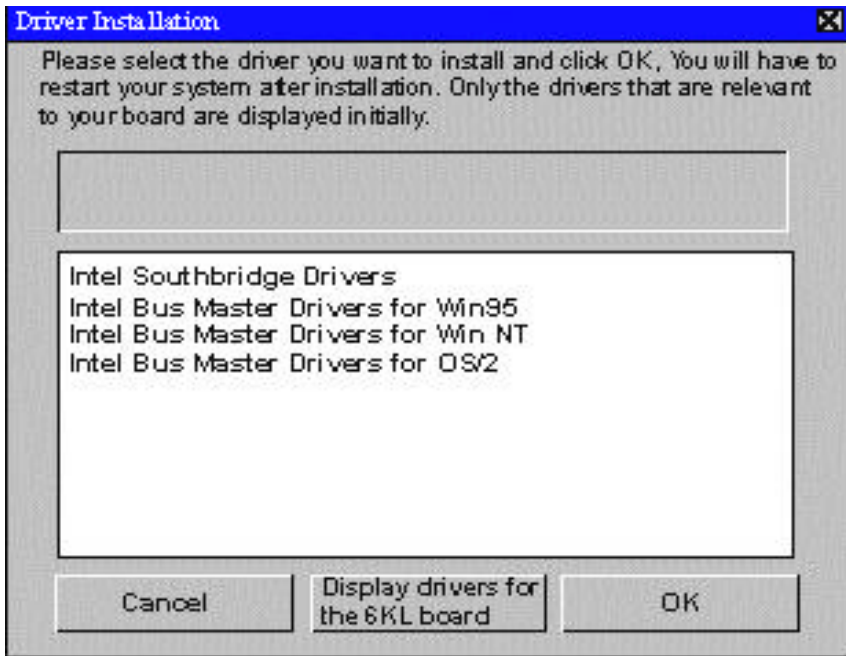
The user's manual files included on the SOYO CD can be read in PDF (Postscript Document) format. In order to read a PDF file, the appropriate Acrobat Reader software must be installed in your system.

Note: The Start Up program automatically detects if the Acrobat Reader utility is already present in your system, and otherwise prompts you on whether or not you want to install it. You must install the Acrobat Reader utility to be able to read the user's manual file. Follow the instructions on your screen during installation, then once the installation is completed, restart your system and re-run the SOYO CD.

Step 3. Install Drivers

Click the **Install Drivers** button to display the list of drivers software that can be installed with your mainboard. The Start Up program displays the drivers available for the particular model of mainboard you own. We recommend that you only install those drivers.

However, to display the list of all drivers software available with SOYO mainboards, click the **Display all drivers on the SOYO CD** button. Please make sure to install only the drivers adapted to your system, or otherwise this cause system malfunctions.



(Driver Installation Menu)

Select which driver you want to install and click **OK**, or click **Cancel** to abort the driver installation and return to the main menu.

Note: Once you have selected a driver, the system will automatically exit the SOYO CD to begin the driver installation program. When the installation is complete, most drivers require to restart your system before they can become active.

Step 4. Enter the SOYO CD

Click the **Enter SOYO CD** button to enter the SOYO HTML database. The Start Up program will activate the default HTML browser installed on your system (for example, Internet Explorer or Netscape) to visualize the contents of the SOYO CD.

The SOYO CD contains useful information about your mainboard and other SOYO products available in as many as eleven different languages. For your convenience, this information is available in HTML format, similar to the format widely used on the Internet.



(SOYO CD HTML Database in English*)

(* The list of menu options may vary between languages)

Note: If no HTML browser is installed on your system, the Start Up program will prompt you on whether or not you would like to install the Internet Explorer* browser. Click YES to install the HTML browser. After the installation is complete, please restart your system. Then re-run the SOYO CD and you will be able to browse the SOYO HTML database.

(* Internet Explorer is a Microsoft Trademark)

Edition: August 1998
Version 1.0
6KL SERIAL

International Headquarters

Soyo Computer Inc., (Taiwan)
Tel: 886-2-2290-3300
Fax: 886-2-2298-3322
Web Site: <http://www.soyo.com.tw>
E-mail: info@mail.soyo.com.tw

USA Branch Office

Soyo Tek Inc., (USA)
Tel: (408) 452-7696
Fax: (408) 573-7696
Web Site: <http://www.soyousa.com>
E-mail: sales@soyousa.com

SOYO Europe

Soyo Europe B.V., (Holland)
Tel: 31-79-3637500
Fax: 31-79-3637575
Web Site: <http://www.soyo-europe.com>
<http://www.soyo.nl>
E-mail: Sales@soyo.nl

Germany Branch Office

SAAT Technology GmbH, (Germany)
Tel: 49-(0)444-204044
Fax: 49-(0)441-203422
Web Sites: <http://www.saat.de>
<http://www.soyo-saat.de>
<http://www.soyo-saat.com>
Email: sales@saat.de

UK Branch Office

Soyo (U.K.) Ltd.
Tel: 44-(0)181-569 4111
Fax: 44-(0)181-569 4134
Web Site: <http://www.soyo.nl>
E-mail: sales@soyo.nl

Japan Branch Office

Soyo Computer (Japan)
Tel: 81-3-33682188
Fax: 81-3-33682199
Web Site: <http://www.soyo.co.jp>
E-mail: soyo@po.iijnet.or.jp

Hong Kong Branch Office

Soyo Hong Kong Ltd. (H.K.)
Tel: 852-2710-9810
Fax: 852-2710-9078
Web Site: <http://www.soyo.com.hk>
E-mail: rshu@hkstar.com